

As already indicated, this insect is an inhabitant of midland and southern England and S. Wales. I have records of its occurrence in 23 English counties and in Carmarthen and Glamorgan. But strangely enough, though so conspicuous an insect, it is omitted from Dale's list for Glanvilles Wootton, and though I have myself collected for some time in Dorsetshire I have not taken it in that county, though it occurs in Hampshire on the one side and in Devon on the other. It is, no doubt, unsafe to argue from negative evidence like this that the insect is really not present in the county, especially as its life in the perfect state is such a very brief one, and visiting collectors might miss it by being present at the wrong time of the year; but such an argument will not explain its absence from the Glanvilles Wootton list, which represents Mr. Dale's work for many years and for all the year round. In the Alps this species may be found up to the height of 3000 feet.

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A GENERIC ARRANGEMENT OF BRITISH JASSINA.

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The subject-matter of this paper forms part of a long over-due revision of the systematics of the British Cicadina, which is now nearing completion. It is published in advance in order that it may be available for use in a re-arrangement of British Cicadina now in progress in a Government Museum. For this purpose a statement of index-characters and a list of the species dealt with has been considered sufficient to indicate the categories intended, leaving extended definitions and discussion of the characters employed for another occasion. It is believed that the genera used, with the possible exception of *Stictocoris* J. Sahlb., of which only the two British species, *preyssleri* and *flaveola*, were available for study, represent homogeneous natural categories; which is hardly the case with such terms as *Athysanus*, *Thamnotettix*, and *Deltocephalus* as commonly applied.

Hardya bears considerable superficial resemblance to *Deltocephali* of the *pulicaris*-group, but a different line of descent is indicated not only by the want of the cross-vein intermediate m-cu in the elytra, but also by the form and direction of the male genital plates. In the majority of our Jassina the male genital plates lie in approximately the same plane as the valve and form the two halves of a common, usually

more or less triangular, figure with their inner edges in contact; in *Hardya* the plates stand at right angles to the valve and each is a large equilateral triangle having its base equal to and in contact with one-half of the free edge of the valve, consequently there is, in the cephalad aspect, a large \vee -shaped space between them. The only extra-British record for *H. melanopsis* with which I am acquainted is Irkutsk (Jakovlev *in litt.*), Oshanin, Cat. 1908. The genera *Ophiola*, *Mocydia*, *Recilia*, and *Drylix* are all well distinguished by their facies; and the removal of their components from the genera in which they are commonly placed contributes to the homogeneity of the latter.

The Comstock-Needham terminology has rendered possible the intelligible use of characters derived from venation. The venation of the elytra in Cicadina is much less stable than in some other groups, but the instability is not sufficient to neutralize the phylogenetic significance of venational characters.

I distinguish *Jassina* from the other eight divisions of *Jassidae* as follows:—Frontal sutures not meeting above the antennae; ocelli on the forehead, *i. e.* that part of the epicranium where the crown passes into the frons; M forked on the disc of elytra; both edges of the outer face of hind tibiae multi-spinose.

JASSINA.

- 1 (10) R_{2+3} in elytra running to the termen rather than the costa. Crown with a distinct keel at the hind margin, or separated from the frons by a well-defined ridge, or strigose in front parallel with the free sides.
- 2 (3) Crown four-sided, bounded behind by a fine keel
.. *Grypotes* Fieb.
- 3 (2) Crown five-sided.
- 4 (5) Ocelli nearly or quite touching the eyes *Platymetopius* Burm.
- 5 (4) Ocelli evidently free from the eyes.
- 6 (9) Crown separated from the face by a well-defined ridge.
- 7 (8) Pronotum separated from prosternum by a ridge. Crown with a deep impression parallel with its front edge . . . *Graphoecraerus* Thoms.
- 8 (7) Sides of pronotum not margined. Crown reflexed in front
.. *Doratura* J. Sahlb.
- 9 (6) No ridge separating the face from the crown, the latter strigose in front parallel with its free sides. Face pale with a black chevron on the upper half reaching from side to side. *Rhytistylus* Fieb.
- 10 (1) R_{2+3} in elytra running to the costa. Crown ecarinate at the hind margin, not separated from the face by a well-defined ridge, nor strigose in front parallel with its free sides.
- 11 (20) Intermediate m-cu present.
- 12 (13) Elytra with many irregular supernumerary white cross-veins. Crown widely rounded in front. *Jassus* Fab.

- 13 (12) Elytra without supernumerary white cross-veins.
- 14 (17) R_1 in elytra directed obliquely cephalad.
- 15 (16) Termen obliquely truncate. Ocelli not standing in a black-edged pale band.....*Scaphoideus* Uhl.
- 16 (15) Termen rounded. Ocelli at each end of a black-edged pale band which runs from eye to eye.....*Paralimnus* Mats.
- 17 (14) R_1 in elytra erect.
- 18 (19) Crown broadly rounded in front*Paramesus* Fieb.
- 19 (18) Crown pointed in front*Deltocephalus* Burm.
- 20 (11) Intermediate m-cu wanting.
- 21 (32) Elytra with the dorsum straight or nearly straight throughout: their apices therefore not or but slightly overlapping in repose.
- 22 (31) Ocelli evidently free from the eyes.
- 23 (24) Frons as long as, or but little longer than, the distance between the ocelli; frontal sutures converging rapidly from the base of the antennae to the clypeus, or at least convex throughout
.....*Athysanus* Burm.
- 24 (23) Frons much longer than the distance between the ocelli.
- 25 (30) Elytra rounded at the apex.
- 26 (29) Pronotum with a lateral carina. Elytra normally having all the cells edged with black.
- 27 (28) Pronotum with three or five pale stripes. Genital plates separately triangular, their inner edges widely divergent
.....*Hardya*, gen. nov.
- 28 (27) Pronotum marbled transversely with black. Inner edges of genital plates close together.....*Ophiola*, gen. nov.
- 29 (26) Pronotum laterally ecarinate. Cells of elytra not edged with black
.....*Stictocoris* J. Sahlb.
- 30 (25) Elytra narrowly pointed at apex*Mocydia*, gen. nov.
- 31 (22) Ocelli nearly or quite touching the eyes. Front edge of crown with a black band bearing five pale spots*Recilia*, gen. nov.
- 32 (21) Elytra with the dorsum very distinctly angulated at the apex of the clavus; their apices therefore much overlapping in repose.
- 33 (40) R_{2+3} and R_{4+5} separating before the latter receives M_{1+2} , which therefore runs into R_{4+5} ; elytra with five apical cells.
- 34 (35) Pronotum separated from the prosternum by a distinct keel; sides of thorax of moderate length*Thamnotettix* Zett.
- 35 (34) No keel dividing the pronotum from the prosternum; sides of thorax very short.
- 36 (39) Crown broadly rounded, not evidently longer in the middle than at the sides.
- 37 (38) Crown without markings. Elytra opaque with concolorous veins
.....*Opsius* Fieb.
- 38 (37) Crown with a wide black band in front. Elytra transparent, the veins discolorous*Drylix*, gen. nov.
- 39 (36) Crown obtusely pointed, considerably longer in the middle than at the sides.....*Limotettix* J. Sahlb.
- 40 (33) R_{2+3} and R_{4+5} separating much beyond the apex of M_{1+2} , the latter therefore running into R_1 ; elytra with four apical cells.

- 41 (42) Less than one-half of the dorsum beyond the apex of the clavus.
Wings: R_{4+5} and M_{1+2} anastomosing in the apical third, or
connected only by a cross-vein *Cicadula* Fieb.
- 42 (41) One-half of the dorsum beyond the apex of the clavus. Wings
 R_{4+5} and M_{1+2} confluent in the apical third

.. *Balclutha* Kirk.

GRYPOTES Fieb.
pinetellus Zett.
PLATYMETOPIUS Burm.
undatus De G.

GRAPHOCRAERUS
Thoms.
ventralis Fall.

DORATURA J. Sahlb.
stylata Boh.
impudica Horv.

RHYTISTYLUS Fieb.
proceps Kbm.

JASSUS Fab.
commutatus Fieb.
modestus Fieb.
mixtus Fab.

SCAPHOIDEUS Uhler.
formosus Boh.

PARALIMNUS Mats.
phragmitis Boh.

PARAMESUS Fieb.
nervosus Fall.

DELTOCEPHALUS Burm.
multinotatus Boh.
ocellaris Fall.
linnei Fieb.
repletus Fieb.
picturatus Fieb.
falleni Fieb.
flori Fieb.
sursumflexus Then.
distinguendus Flor.
socialis Flor.
punctum Flor.
striatus L., Then.
thenii Edw.
sabulicola Curt.
normani Scott.
halophilus Edw.

abdominalis Fab.
striifrons Kbm.
pascuellus Fall.
minki Fieb.
cephalotes H.-S.
collinus Boh.
maculiceps Boh.
pulicaris Fall.
panzeri Flor.
argus Marsh.
costalis Fall.

ATHYSANUS Burm.
brevipeunis Kbm.
griseus Zett.
sordidus Zett.
sahlbergi Reut.
russeolus Fall.
obsoletus Kbm.
sejungendus Kbm.
plebejus Fall.
lineolatus Brullé.
variegatus Kbm.
schenki Kbm.
distinguendus Kbm.

HARDYA, gen. nov.
melanopsis Hardy.

OPHIOLA, gen. nov.
striatula Fall.
striatulella Edw.

STICTOCORIS J. Sahlb.
preyssleri H.-S.
flaveola Bon.

MOCYDIA, gen. nov.
crocea H.-S.
attenuata Germ.

RECILIA, gen. nov.
coronifer Marsh.
coroniceps Kbm.

THAMNOTETTIX Zett
prasinus Fall.
dilutior Kbm.
subfuscus Fall.
cruentatus Panz.
torneellus Zett.
splendidulus Fab.

OPSIUS Fieb.
stactogalus Am.

DRYLIX, gen. nov.
striola Fall.
atricapilla Boh.

LIMOTETTIX J. Sahlb.
4-notata Fab.
persimilis Edw.
aurantipes Edw.
saturata Edw.
5-notata Boh.
intermedia Boh.
lunulifrons J. Sahlb.
frontalis H.-S.
sulphurella Zett.

CICADULA Fieb.
6-notata Fall.
lirida Edw.
frontalis Scott.
viridi-grisea Edw.
feiberi Edw.
fasciifrons Stål.
variata Fall.
7-notata Fall.
punctifrons Fall.
cyanae Boh.
dahlbomi Zett.
metria Flor.
opacipennis Leth.

BALCLUTHA Kirk.
punctata Thunb.

Colesborne.

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